

Appl. No. 10/840,211
Amdt. dated March 16, 2006
Reply to Office action of Dec. 19, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An assembly, comprising:
an outer race of a constant velocity joint; and
a shaft of an outboard drive axle axially coupled to said outer race,
wherein said shaft has an external surface and an external groove circumferentially
formed in the said external surface of said shaft;
a retaining element;
a wheel hub having a first bore, wherein said first bore of said wheel hub
telescopingly receives said external surface of said shaft and is held between said outer
race and said retaining element; and
a bearing assembly without pre-tensioning and telescopingly received on
one of said shaft on said wheel hub,
wherein said retaining element releasably engages said external groove of
said shaft and imparts no pre-tensioning on said bearing assembly.
2. (Currently Amended) The assembly of claim 1, ~~further~~
~~comprising a~~ wherein said retaining element is compressively retractable within said
engaged in the external groove of said shaft, and wherein said retaining element and
said shaft are telescopingly received in a second bore of said bearing assembly and in
said first bore of said wheel hub.
3. (Currently Amended) The assembly of claim 1, ~~further~~
~~comprising a~~ wherein said retaining element is compressively retractable within the said
external groove of said shaft, and wherein said retaining element and said shaft are
telescopingly received in said first bore of said wheel hub.

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4. (Currently Amended) The assembly according to ~~claims~~ claim 1, wherein the said external surface of said shaft has a plurality of external splines axially engaging internal splines on said first bore of said wheel hub.

5. (Currently Amended) The assembly according to ~~claim 2 or claim 3~~ claim 1, wherein the said retaining element is a spring ring.

6. (Currently Amended) The assembly of claim 1 wherein ~~said claim 2, further comprising a wheel hub having a first bore an outer surface and a radially extending flange, telescopingly receives a second bore of said bearing assembly on said outer surface and retains said bearing assembly wherein the first bore of said wheel hub is coupled to the external surface of said shaft and held in an assembled position between said outer race and said radially extending flange of said wheel hub. retaining element, wherein said retaining element is engaged in the external groove of said shaft.~~

7. (Currently Amended) The assembly of claim 1 ~~claim 2, further comprising part of a wheel bearing and a wheel hub, wherein said wheel bearing part bearing assembly comprises a second bore, a first side and a second side, where said wheel bearing part said second bore being telescopically received on is coupled to said shaft, wherein said and the first side is adjacent to said outer race, and said second side is adjacent wherein said wheel hub comprises a first inner bore and a radially extending flange, wherein the first bore of said wheel hub is coupled to the external surface of said shaft and is held in an assembled position between the second side of said bearing part and said retaining element, and wherein said retaining element is engaged in the external groove of said shaft.~~

8. (Currently Amended) The assembly of ~~claim 3, further comprising a~~ claim 6 wherein ~~said wheel hub having a first bore, a radially extending flange, and comprises an internal groove circumferentially formed in the said first bore for receiving said retaining element, wherein the first inner bore of said wheel hub is~~

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~~coupled to the external surface of said shaft, wherein said wheel hub and said shaft are held in an assembled position by said retaining element, and wherein said retaining element is engaged in said internal groove and said external groove.~~

9. (Currently Amended) The assembly of claim 7 ~~claim 3~~, further comprising ~~part of a wheel bearing and a wheel hub, wherein said wheel bearing part comprises a second bore, a first side and a second side, wherein said wheel bearing part is coupled to said shaft and the first side is adjacent to said outer race, and wherein said wheel hub comprises a first bore, a radially extending flange, and an internal groove circumferentially formed in the said first bore for receiving said retaining element, wherein the first bore of said wheel hub is coupled to the external surface of said shaft and adjacent to the second side of said wheel bearing part, wherein said wheel hub and said shaft are held in an assembled position by said retaining element, and wherein said retaining element is engaged in said internal groove and said external groove.~~

10. (Currently Amended) The assembly according to ~~any one of~~ claim 6, wherein the said first bore of said wheel hub and the said external surface of said shaft has have inter-engaging splines.

11. (Currently Amended) The assembly according to ~~any one of~~ claim 7, wherein the said first bore of said wheel hub and the said external surface of said shaft has have inter-engaging splines.

12. (Currently Amended) The assembly according to claim 6 further comprising a retaining ring and a steering knuckle having a third bore and a backstop, said steering knuckle telescopingly receiving said bearing assembly in said third bore and retaining said bearing assembly between said backstop and said retaining ring, any one of claim 8, wherein the first bore of said wheel hub and the external surface of said shaft has inter-engaging splines.

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13. (Currently Amended) The assembly according to claim 7 further comprising a retaining ring and a steering knuckle having a third bore and a backstop, said steering knuckle telescopingly receiving said bearing assembly in said third bore and retaining said bearing assembly between said backstop and said retaining ring. ~~any one of claim 9, wherein the first bore of said wheel hub and the external surface of said shaft has inter engaging splines.~~

14. (Currently Amended) An assembly, comprising:
an outer race of a constant velocity joint;
a shaft of an outboard drive axle axially coupled to said outer race, wherein said shaft has an external surface and an external groove circumferentially formed in the external surface of said shaft;
a steering knuckle having a third bore and a backstop;
a retaining ring;
a ~~new-generation~~ wheel bearing assembly without pre-tensioning and comprising an outer part rotatably coupled by a plurality of bearing elements to an inner part, wherein the inner part has a second bore, a first side and a second side, wherein the outer part of said wheel bearing assembly is fit into the third bore up to the backstop of said steering knuckle and retained by said retaining ring opposite the backstop, the inner part of the wheel bearing assembly is coupled to said shaft and the first side is adjacent to said outer race;
a retaining element; and
a wheel hub having a first bore and a radially extending flange, wherein the first bore of said wheel hub is coupled to the external surface of said shaft and held in an assembled position between the second side of the inner part of said wheel bearing assembly and said retaining element, wherein said retaining element is engaged in the external groove of said shaft and imparts no pre-tensioning on said wheel bearing assembly, and wherein the wheel hub is rotatably drivable within the steering knuckle by the constant velocity joint.

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15. (Original) The assembly of claim 14, ~~further comprising~~ an internal groove in the first bore of said wheel hub, wherein said retaining element is engaged in said internal groove and said external groove.

16. (Currently Amended) The assembly according to claim 14, wherein the first bore of said wheel hub and the external surface of said shaft ~~has~~ have inter-engaging splines.

17. (Currently Amended) In an assembly comprising an outer race of a constant velocity joint, a shaft of an outboard drive axle axially coupled to said outer race, wherein said shaft has an external surface and an external groove circumferentially formed in the external surface of said shaft, and a ~~new generation~~ wheel bearing assembly without pre-tensioning and having a second bore, a retaining element, and a wheel hub having a first bore and a radially extending flange, a method of retaining said wheel hub and said wheel bearing in telescopic relationship with said shaft by said retaining element comprising:

telescoping said shaft inwardly through the second bore of said wheel bearing assembly and the first bore of said wheel hub;

retaining said wheel hub and said wheel bearing assembly on said shaft with an engaged retaining element in the external groove of said shaft while imparting no pre-tensioning on said wheel bearing assembly; and

mounting said retaining element on said shaft.

18. (Original) The method of claim 17, further comprising compressing said retaining element within said external groove of said shaft while receiving in telescopic relationship said wheel hub onto said shaft.

19. (Original) The method of claim 18, further comprising an internal groove circumferentially located in the second bore of said wheel hub for receiving said retaining element, wherein said retaining element is a spring ring.